

From wang!elf.wang.com!ucsd.edu!info-hams-relay Sat Mar 23 16:40:45 1991 remote
from tosspot
Received: by tosspot (1.63/waf)
via UUCP; Sat, 23 Mar 91 15:20:42 EST
for lee
Received: from somewhere by elf.wang.com
id aa20234; Sat, 23 Mar 91 16:40:42 GMT
Received: from ucsd.edu by news.UU.NET with SMTP
(5.61/UUNET-shadow-mx) id AA29359; Sat, 23 Mar 91 09:54:57 -0500
Received: by ucsd.edu; id AA10491
sendmail 5.64/UCSD-2.1-sun
Sat, 23 Mar 91 04:30:41 -0800 for brian
Received: by ucsd.edu; id AA10487
sendmail 5.64/UCSD-2.1-sun
Sat, 23 Mar 91 04:30:38 -0800 for /usr/lib/sendmail -oc -odb -oQ/var/spool/
lqueue -oi -finfo-hams-relay info-hams-list
Message-Id: <9103231230.AA10487@ucsd.edu>
Date: Sat, 23 Mar 91 04:30:37 PST
From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>
Reply-To: Info-Hams@ucsd.edu
Subject: Info-Hams Digest V91 #233
To: Info-Hams@ucsd.edu

Info-Hams Digest Sat, 23 Mar 91 Volume 91 : Issue 233

Today's Topics:

 * SpaceNews 25-Mar-91 *

 Anybody out there ever fixed a microwave oven
 anybody out there ever fixed a tv
 Cable TV Interference
 First No-code Tech?
 ICOM R1 May be Available
 marvin update
 morse keys
 reading odd components
 Solar Flares 21 March
 what does COSMAC mean, as in 1802
 Whither J. Meshna? (Western MA surplus electronics dealer)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text

herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 23 Mar 91 02:03:31 GMT
From: ka2qhd!kd2bd@RUTGERS.EDU
Subject: * SpaceNews 25-Mar-91 *
To: info-hams@ucsd.edu

SB SPACE @ AMSAT < KD2BD \$SPC0325
* SpaceNews 25-Mar-91 *

Bulletin ID: \$SPC0325

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SpaceNews
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MONDAY MARCH 25, 1991

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is published every week and is made available for unlimited distribution.

* U2MIR NEWS *

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U2MIR Activity Patterns by John Shalamskas, KJ9U 3/17/91

Evidently, the best times to work the cosmonauts "live" are weekends UTC, with some leeway for Fridays and Mondays. Currently, their work schedule of 08:00 to 23:00 Moscow time means that they are asleep from 23:00 to 08:00 Moscow time. Watch for passes during their wakeful hours if you wish to have a "live" conversation. It's quite an experience!

UTC: "Prime Time" hours are from 05:00 to 20:00 Friday - Monday

For the record, his name is pronounced "Moo'sah", and he really does have some trouble with the English language.

* STS-37 NEWS *

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A Flight Readiness Review for STS-37 is scheduled for March 26 and 27. Shuttle Amateur Radio EXperiment (SAREX) schedules have already been made with various schools around the country. On 05-Apr-91, several "bridges" have been scheduled so astronauts can communicate directly with school children using Amateur Radio. Contacts will be made at

15:11, 18:29 and 20:20 UTC using both voice and slow-scan television (SSTV) on this date. Audio re-transmissions of these bridges should be available on WA3NAN, the Amateur Radio club station at the Goddard Space Flight Center in Greenbelt, Maryland.

[Info via N9JEL]

★ PACSAT NEWS ★

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After spending two weeks studying memory dumps, NK6K and G0/K8KA have determined the cause of the on-board computer crash which occurred on AO-16 March 2. NK6K traced the crash back to an inefficient way in which a "homebrew" PACSAT user program requested information about new files stored on the BBS. Because of the slow way the search for new files was being performed and the fact that at the time of the crash there were over 560 files stored, the file server took a lot longer to search than normal. After sixty seconds, a critical software timer timed out, and as NK6K put it, "the dominoes started falling."

Now that this problem has been identified, G0/K8KA has made a change in the PACSAT file server software so that this problem won't re-occur. Also, new implementation notes will be published so that all writers of PACSAT ground station user software will be aware of the change in the PACSAT Protocol.

As of 03:00 on March 15, 1991, the BBS on AO-16 was back in operation. Likewise, the BBS on LUSAT-OSCAR-19 (LO-19) was on-line, according to LU7XAC. It is believed that the LO-19 on-board computer crash was due to the same problem, manifest in a slightly different way. NK6K points out that PACSAT BBS software is much more robust with each new version, and the time between crashes is increasing.

[Info via ANS]

★ INTERSTELLAR QRM ★

=====

145.825 MHz has become a popular frequency for VHF radio links with OSCAR satellites. At the present time, 145.825 MHz is used as a downlink for both OSCAR-11 (UoSAT-2) and OSCAR-17 (DOVE-1). RS-14/OSCAR-21 is a close neighbor, using 145.822 MHz for a CW telemetry beacon. At the same time, RS10 and RS11 use this frequency (+/- 5 KHz) for uplinks to their auto-transponders, or "robots".

The popularity of 145.825 MHz has created some real problems! On frequent occasions, OSCARs 11, 17 and 21 can all be heard at once, causing severe interference between satellites and making it impossible to copy ANY

satellite when all three come into range at once. There have also been occasions when RS10 or RS11's "robot" uplinks have been interfered with by constant carrier (FM) emissions from OSCAR 11 and/or 17. Since many OSCAR satellites are placed in sun-synchronous orbits, they often come into range of a given satellite groundstation at about the same time every day, and if they all use the same beacon frequency, the severe interference problem results.

145.825 MHz is simply getting too crowded for practical use. Even the short-lived BADR-1 spacecraft used this frequency as an outlet for its telemetry beacon. Perhaps we should look toward using the 144.300 to 144.500 MHz OSCAR subband in future amateur spacecraft.

Something to think about.... de KD2BD

★ TNX QSL! ★

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A special thanks to all those who sent QSLs to SpaceNews:

KB2HMK : Michel Zadoroznyj, Garfield, New Jersey, USA
N3IKS : John Ford Gibson III, Philadelphia, Pennsylvania, USA
N6YGD : Donald Bowtell, Byron, California, USA
WB9OKM : Leland Ronzheimer, Waukegan, Illinois, USA
WT0N : B.J. Arts, Plymouth, Minnesota, USA

...and e-mail messages:

KB2FID, N2AAM, VK2BBD, WA2N, TI3DJT, KC4UZA, SM6JNS, N9JEL

★ FEEDBACK WELCOMED ★

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Feedback regarding SpaceNews reports may be directed to the editor using any one of the following paths:

INTERNET : kd2bd@ka2qhd.de.com
PACKET : KD2BD @ NN2Z.NJ.USA.NA
UUCP : ...rutgers!ka2qhd!kd2bd

MAIL : John A. Magliacane, KD2BD
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/EX

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Lincroft, NJ 07738 USA VOICE: (908) 842-1900 ext 607

Date: 22 Mar 91 12:38:06 GMT
From: hpfcso!hpfcjdj!keith@hplabs.hpl.hp.com
Subject: Anybody out there ever fixed a microwave oven
To: info-hams@ucsd.edu

Of all the potential failure modes for microwave ovens no one has mentioned the solid state diode in the rectifier. I have replaced this part twice in one oven. Unfortunately on the second time it was determined that the magnetron was also bad. I choose to let the repair shop handle that job since the labor charge was a very small percentage of the price of the new part and they would also guarantee it for a year (not so if I installed it.)

BTW, if you ever have to replace the magnetron, make sure you keep the old part. Destructive disassembly of this part will yield some wonderful magnets to play with and amaze your friends!

John Keith

Date: 22 Mar 91 21:42:20 GMT
From: sbi!pivot-nj!canada!jerrys@uunet.uu.net
Subject: anybody out there ever fixed a tv
To: info-hams@ucsd.edu

Hi,

I've got a relatively new b&w portable tv. For some reason, whenever I turn the set on now, the sound comes on way up there in loudness. There is probably some very simple componenet that is "sick" but I don't know enough about what to look for.

Any suggestions ????

Date: 23 Mar 91 01:09:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Cable TV Interference
To: info-hams@ucsd.edu

If the interference is coming from a ham operating in the 2 meter or 220 Mhz band and is operating legally, you don't have a leg to stand on. A few years ago when the cable industry lobbied HARD for the FCC to open up new frequencies for super band and above, they promised to ACCPET ANY INTERFERENCE, AND NOT TO GIVE ANY INTERFERENCE. They agreed to it as a secondary service. But take a scanner and enter 145.25 Mhz (the 2 meter frequency for cable channel 18) and you will see just how good the interference gets into your scanner! There are a lot of 2 meter repeaters output on 145.25 nationwide. (I know, I am part owner of one) You just make a call to your local cable company about RECEIVING cable interference on your 2 meter radio, and the cable company panics. The FCC just cracked down on cable companies last year for excessive leakage. \$10,000 dollars per leak per day is the max fine and some CATV systems got them too! So if you are getting interference on your cable system, you have to complain to your cable company and you have to put up with the interference.

Sorry! (GREED LOSES AGAIN!)

```
~~~~~
Charles Layno          BITnet: wb4wor@UNCG.BITNET
P.O. Box 8252          Internet: wb4wor@steffi.acc.uncg.edu
Greensboro, NC        CompuServe: 71441,1562
27419-0252             Packet Radio Mail: WB4WOR @ WB4WOR.#GSO.NC.USA.NA
                        "REALITY.....WHAT A CONCEPT!"
~~~~~
```

Date: 23 Mar 91 01:58:48 GMT
From: epic!karn@bellcore.bellcore.com
Subject: First No-code Tech?
To: info-hams@ucsd.edu

In article <andreap.669677698@s.ms.uky.edu>, andreap@ms.uky.edu (Peach) writes:
|> This lady, and I fear, many others entering our number do not share
|> this feeling. She was getting licensed so that she could talk
|> to her husband -- not because she loves radio.

I think it is probably safe to say that even before no-code, many (if not most) women entered amateur radio for the same reason. It just reflects the differing attitudes that men and women have been conditioned to have towards having an interest in technology. This is not to say that women who initially enter amateur radio just to talk to their husbands can't discover an interest in another facet of the service. Of course, if you ostracize them then you'll fulfill your own prophecy - they probably WON'T progress past simply talking to their husbands.

Can you say that you still are interested in those things (and ONLY those things) that initially attracted you to ham radio? (This assumes you've been around for a while, of course. I've been a ham for almost 20 years. Packet radio didn't exist in 1971, of course, though I did have a fascination for a local friend's RTTY machine. But mostly I had a passion for 40m CW - believe it or not.)

Every day on my way to and from work I monitor one local repeater on which the same two or three jaded (male) hams are having the same old tired, content-free QSO over and over again. Very little of what they say expresses a "love of radio" - in fact, the sarcasm and cynicism is so strong that it's downright depressing to listen to. I wouldn't mind an interruption in this routine, even if it's a wife talking to her husband.

Phil

Date: 22 Mar 91 21:15:58 GMT
From: swrinde!zaphod.mps.ohio-state.edu!samsung!raybed2!ewb@ucsd.edu
Subject: ICOM R1 May be Available
To: info-hams@ucsd.edu

Information received here indicates that ICOM has settled with AOR (not Uniden) and the ICOM R1 pocket rocket receiver will be available this summer in the US. Price has yet to be announced.....
You heard it here first ??

Date: 23 Mar 91 05:08:06 GMT
From: sdd.hp.com!zaphod.mps.ohio-state.edu!ub!bowen@ucsd.edu
Subject: marvin update
To: info-hams@ucsd.edu

I've just updated marvin with the newest data from Rusty (which isn't so new due to my laziness). Sincere apologies for not getting it updated sooner. Especially to those of you that donated money to Rusty's fund in marvin's name. I didn't realize there were that many people that did that. I will make sure updates are more prompt in the future.

This update does not fix the bugs or add the new features that I've been talking about doing. I hope to find time for that stuff over Easter weekend.

Devon

Date: 23 Mar 91 05:11:36 GMT
From: swrinde!cs.utexas.edu!ut-emx!oo7@ucsd.edu
Subject: morse keys
To: info-hams@ucsd.edu

richv@hpinddu.cup.hp.com (Rich Van Gaasbeck) enquires:

>Does anyone have a feel for the percentage of hams sending manually
>vs. using some kind of electronic assistance? Do people still use
>straight keys or are "morse machines" and built-in keyers the way to
>go?

Depends on their age, the band, the time of day. Some of us use both
at least some of the time. If the sending is at 30+ wpm it's probably
not manually sent (at least, not by me...).

For anyone interested in straight keys, Kent Engineers in England sell
kits for a real beauty. Lovely action, good solid brass stuff, all
very Marconi. They advertise in the RSGB bulletin, or I'll send the
address if anyone's interested. The kit goes together in a few minutes,
and I get a kick out of using the thing. But when the rare DX comes
on, or it's contest time, out comes the electronic keyer.

Date: 22 Mar 91 17:30:18 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com
Subject: reading odd components
To: info-hams@ucsd.edu

The ARRL Handbook contains a table of copper wire values, which hint at
such methods as:

Turns per inch
Resistance per 100'
Feet per pound
if you don't mind smoke, amps at 100 degrees C :-)

Look up "wire" in the index.

Perry Scott
KF0CA

Date: 22 Mar 91 04:23:22 GMT

From: hpfcso!hplvec!chris@hplabs.hpl.hp.com
Subject: Solar Flares 21 March
To: info-hams@ucsd.edu

You may have noticed 40 meters, at least, quite disturbed this evening. Upon calling the Boulder solar info number, I found that our A index is 18 (!) and K index 3, with major flares at 2026 and 2344 UTC on 21 March. 6 Meters should be interesting.
de WD5IBS

Date: 23 Mar 91 02:10:43 GMT
From: epic!karn@bellcore.bellcore.com
Subject: what does COSMAC mean, as in 1802
To: info-hams@ucsd.edu

|> >Hi. I'm playing with a COSMAC 1802 chip and wondered why they are called
|> >COSMAC. Are all 1802s rad-hard, and does this have anything to do with it?

I don't know about ALL 1802s, but the ones flying in Oscar 10 and 13 are special versions from Sandia that are hard to a megarad. Rumor has it that they are used in nuclear weapon triggering mechanisms.

|> *Are* they rad-hard? I know that when I bought mine back in '77, it came
|> in a MIL-SPEC package, but my memory tells us that the first couple of
|> OSCAR satellites that went up with an 1802 on board failed due to cosmic
|> rays frying the processor.

No, as far as we know the 1802s have never failed - the RAM has. Oscar 10 has (had) 16Kbytes of dynamic RAM (Mostek 4116), as did Phase III-A (the one that went into the drink in May 1980). Dynamic RAM is about the worst stuff to fly in space, but at the time AMSAT had little alternative. Even though we surrounded it by a block of brass, it failed after about three years due to the accumulated radiation dose. Oscar 13 carries 32Kbytes of static ram (Harris 6564) which *is* radiation hardened (to 100 kilorads). So far it is working fine. Note that the Phase III orbit is considerably more hostile radiation-wise than the low circular orbits used for the Microsats (which use conventional microprocessors and RAM).

|> What in the world is anyone doing playing with an 1802 these days?

As with the space shuttle, the qualification process to certify a computer as spaceworthy guarantees that it will be obsolete by the time it reaches the launch pad. Also consider that a considerable amount of custom software may have been developed that might be difficult to port to another CPU. In the case of Phase III, the

software is written in IPS, which is essentially FORTH with German mnemonics. Although IPS can and has been implemented on other CPUs, it and the operational software was designed with the 1802 in mind and it would still take work.

The number of people who are experienced in writing in IPS can probably be counted on the fingers of one hand. They are busy enough doing other things that porting the code to another machine doesn't interest them as long as the existing system is enough to do the job (which it is, for the Phase III satellite).

Phil

Date: 22 Mar 91 15:14:03 GMT
From: usc!cs.utexas.edu!helps!bongo!julian@ucsd.edu
Subject: Whither J. Meshna? (Western MA surplus electronics dealer)
To: info-hams@ucsd.edu

In article <1991Mar21.021554.2227@dcs.simpact.com> jeh@dcs.simpact.com writes:
>> /Alan "once lived just a block from C&H in Pasadena, why did I leave?" Paeth
>> VE3AWP
>
>Ah, C&H Sales!!! Second only to Bernie's Surplus in the SoCalArea.
>
>They have, or had, a resident cat, too -- definitely a good sign.
>

I also used to live just a block from C&H. I lived at 125 South Sierra Madre Boulevard. Shortly after I moved in, My wife and I took a stroll down Colorado Boulevard. We passed C&H and I stopped to gaze through the window. She squeezed my hand and said: "One day, Julian, all this will be yours." I am still working on it.

But one nice thing about Pasadena is C&H for RF connectors and such stuff and Dow Radio half a mile away for new stuff. I would rate Pasadena way up there as nurd heaven.

I will always regret not buying A Rohde & Schwartz Polyskop for \$25 at C&H. I had the money, but not the room.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
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Date: (null)

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End of Info-Hams Digest
